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PRIORITY PROGRAMMES FOR COORDINATED ACTION BY THE UNITED NATIONS SYSTEM IN THE AREA OF MINERAL RESOURCES

Proposal for a mechanism to monitor and gather information on a regular basis on issues concerning the flow of investment in the mineral sector of developing countries and capacity-building in investment promotion

Report of the Secretary-General

SUMMARY

Mineral exploration and development activities in developing countries have stagnated or declined and if they are to be revitalized finance is of crucial importance. To this end, developing countries will have to rely on substantial commercial financial flows, in the provision of which foreign direct investments (FDI) will play an increasingly important role. Developing countries are now taking a different and more positive view of the role that FDI can play in their economic and social development programmes.

With rapidly changing patterns of FDI in the mineral sector and with policy environments with respect to FDI in host developing countries being modified, a periodic review and analysis of such developments would promote awareness in developing countries of these changes. Knowledge of the patterns and flows of FDI would greatly assist in the formulation of the most suitable and efficient policies on the part of countries seeking to attract FDI in the development of their mineral resources. Such a monitoring system could also address problems concerning the statistics and definition of FDI in the mineral sector.

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The key factor in attracting and holding FDI is the creation and maintenance of conditions conducive to productive foreign investment. In addition, developing countries will need to build their capacity in investment promotion, because investment opportunities in developing countries may remain unused if potential investors do not receive adequate and timely information.

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INTRODUCTION

1. Mineral sector investment patterns in developing countries have changed significantly since the latter part of the 1980s, with foreign direct investments (FDI) becoming the major source of funding. In view of this development, FDI will be particularly emphasized in the review and monitoring of investment flows in the mineral sector of the developing countries.

2. For the large majority of developing countries, FDI, official development assistance (ODA) and private bank lending are the major external sources of investment resources. Particularly in mineral resources development, which is a capital-intensive industry dependent on regular investments from private and public sources, foreign direct investment has become the single most important source of funding in developing countries.

3. For the purposes of this report, FDI inflows are the utilized amounts of foreign capital and the reinvested earnings in wholly or majority foreign-owned enterprises, equity joint ventures, contractual joint ventures and exploration projects for mineral resources.

4. After heated debates during the late 1960s and early 1970s on such issues as control over key natural resources and manufacturing industries, numerous developing countries imposed restrictions on FDI. Moreover, after the mid-1970s the phenomenal growth of bank lending to developing countries, primarily by development banks, largely overshadowed FDI in the developing countries.

5. However, the post-1982 debt crisis, the sharp decline in voluntary bank lending and the acute balance-of-payments problems faced by many developing countries have led developing countries once again to take an active interest in foreign corporate investment. Many developing countries have liberalized restrictions on FDI in order to attract new flows of FDI, especially FDI-related foreign exchange flows. FDI is also seen as a source of vital real assets, such as technology, enhanced access to international export markets and management skills, all of which are required to revitalize industrial capital formation and to achieve economic growth.

6. With significant changes taking place in investment patterns in mining, especially with new geographic regions, mineral commodities and types of projects coming into favour, developing countries will require a global overview of FDI in mineral resources development to assist them in the assessment and development of policies to attract FDI in their mineral sectors. The available national FDI statistics, particularly for the mineral sector, show a lack of comparability between countries. There is a need to harmonize these statistics with accepted definitions, in order to provide an improved overview of FDI in mineral resources development. 1/

7. Assessment of global trends in mineral resources development, especially FDI inflows, would promote awareness among developing countries of the need to create reasonable conditions and/or improve their investment and fiscal framework to attract FDI. Clearly, government funds and those provided by multilateral and bilateral cooperation agencies for mineral resources

development are limited. Moreover, in many developing countries national resources for investment are very limited and given the competing demands on these scarce resources, Governments cannot afford to invest in the mining sector with its attendant risks.

I. EXISTING FDI MONITORING AND DATA-COLLECTION MECHANISMS FOR DEVELOPING COUNTRIES

8. FDI data are usually reported in national accounts statements and in local currencies, which more often than not leads to distortion in FDI data. Exchange rates can distort FDI data if inflation is high or if the true value of the currency is not reflected by exchange rates. In a number of developing countries FDI data are not available.

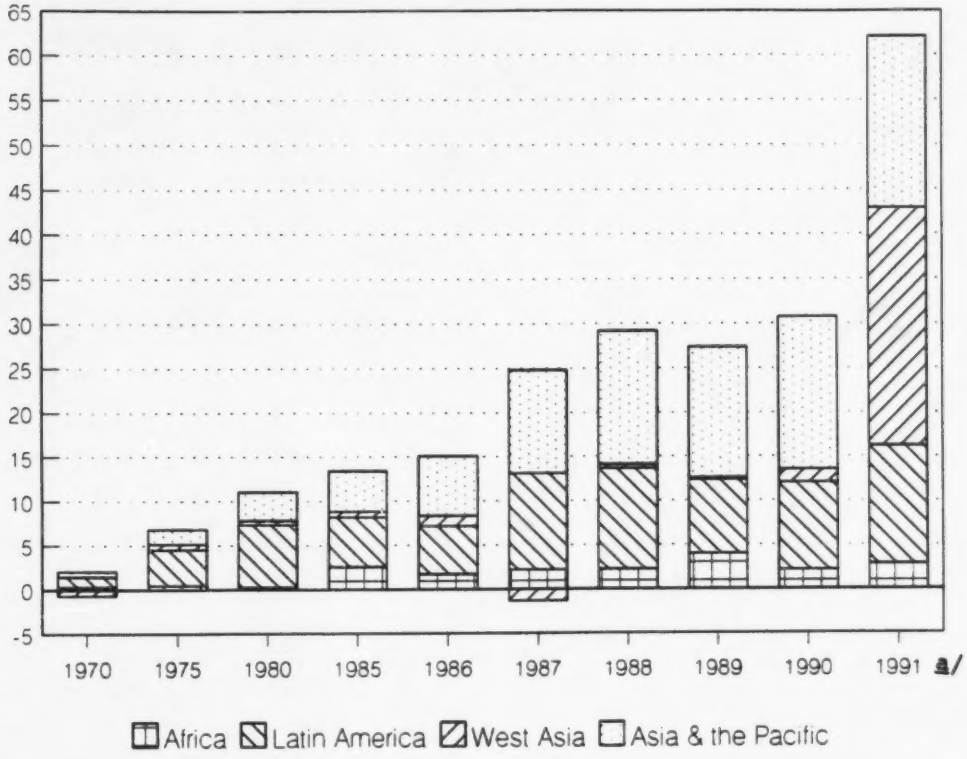
9. In many developing countries sectoral coverage of FDI data is very limited or the classifications followed by the national reporting bodies are incompatible with international standard classifications. As a consequence there is little credible direct data on FDI in the minerals sector and, even more important, there is a lack of comparability between countries.

10. This lack of comparability is due to discrepancies between total outflows and total inflows, because countries differ in their definitions of FDI. Further, when FDI is recorded, countries differ in their methods of data collection and in their corporate accounting practices and valuation methods. Often there is an overstatement of investments as a result of the organization of FDI flow data, especially in cases where funds are channelled through holding companies. Also, the location of the holding companies gives rise to major problems in the compilation of accurate geographical or sectoral distribution of FDI, because the ultimate host country and ultimate investing country become obscured.

11. Total FDI inflows to developing countries have increased significantly during the latter half of the 1980s (see figure 1 below) and the countries of the Asia and Pacific region have become the largest recipients of FDI, especially the newly industrializing higher-income South-East Asian countries. Africa has received a relatively small amount of FDI and although FDI inflows to Africa increased towards the end of the 1980s, they have been in decline since 1990. In Latin American countries the contraction in FDI inflows towards the end of the 1980s, primarily on account of the debt crisis and the problems to which it gave rise, has apparently been reversed. It is noteworthy that, since early 1992, Chile and Mexico have become the major recipients of mining investments. 2/

Figure 1: FDI inflows to developing countries, by region

(Billions of United States dollars)



Source: United Nations, Department of Economic and Social Development, based on data collected by the Transnational Corporations and Management Division.

a/ The anomalous increase in FDI inflows to West Asia in 1991 reflects the financing of rehabilitation and reconstruction in those countries directly involved in the Asian Gulf crisis.

12. The leading factors influencing the continued growth of interest by foreign investors in the Asia and Pacific region are apparently trade and economic growth, quality of human resources, adequate infrastructure and the availability of natural resources. Resource-based export-oriented operations are a leading area of involvement by foreign investors and the mineral sector continues to attract FDI, especially in key producing countries. FDI share in mineral resources development in developing countries, where the data are available, are shown in the table below, based largely on national sources in current prices and local currencies, as well as in United States dollars wherever possible. The data are shown by sector, the primary sector consisting of mining and quarrying data and the secondary sector and subsectors of metal and non-metallic mineral production data. The table clearly illustrates the scarcity of and deficiencies in the data.

13. It is obvious that to achieve enhanced comparability between countries, FDI data should be expressed in a common currency, in United States dollars and ideally in real terms, since exchange rates fluctuate widely and some currencies have been devalued considerably. FDI data are published by a variety of national institutions and the data provided by those institutions are typically the foreign investments approved rather than the investments actually implemented. More often than not sectoral disaggregation of FDI is available for approved amounts only, which are usually larger than those actually implemented. More complete FDI data in the mineral sector could be achieved through a company survey to obtain additional information on components of FDI not covered in foreign exchange records of central banks, which are limited in details, particularly reinvested earnings. Central banks could also require additional information from foreign investors to supplement the data on FDI flows collected primarily for balance-of-payments purposes.

Table 1. FDI in mineral resources development, 1977-1990

	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
Asia and Pacific region														
China (millions of yuan)														
Primary	..	..	..	..	..	..	..	..	1 060.9	..	..	6.1	..	..
Secondary	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Fiji (millions of Fiji dollars)												..		
Primary	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Secondary	..	..	..	..	..	..	..	..	1.2	1.4	..	..	3.7	..
India (millions of rupees)														
Primary	10.0	1.0	14.0	..	..	..	..	..	..	..	..	..	..	..
Secondary	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Indonesia (millions of United States dollars)														
Primary	..	..	..	..	..	..	..	..	..	..	121.5	225.6	82.9	219.7
Secondary	..	..	..	..	..	..	..	..	..	..	382.6	239.2	18.7	59.0
Malaysia (millions of ringgit)														
Primary	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Secondary	..	..	..	..	..	..	..	..	170.5	833.5	1 300.6	5 023.8	..	..
Africa														
Egypt (millions of Egyptian pounds)														
Primary	..	..	..	..	..	..	..	..	..	..	..	0.2	..	..
Secondary (metals)	..	..	..	..	..	..	..	..	..	..	..	63.2	..	..
Secondary (non-metallic)	..	..	..	..	..	..	..	..	..	..	..	32.6	..	..
Ghana (millions of United States dollars)														
Primary	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Secondary (metals)	..	..	..	..	..	..	..	..	..	11.2	7.2	7.0	1.3	..
Secondary (non-metallic)	..	..	..	..	..	..	..	..	..	1.1	5.8	0.1	2.5	..
Morocco (millions of Moroccan dirhams)														
Primary	..	..	..	..	..	..	..	..	..	25.3	0.1	18.9	..	..
Secondary	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Nigeria (millions of naira)														
Primary	..	..	..	..	..	..	..	191.0	42.0	1 766.0	(-249.8)	..	..	..
Secondary (metals)	..	..	..	..	..	..	..	20.9	(-2.2)	23.7	0.8	..	..	..
Secondary (non-metallic)	..	..	..	..	..	..	..	(-14.4)	33.5	144.1	4.3	..	..	..
Zambia (millions of Zambian kwacha)														
Primary	..	..	..	4.7	(-66.8)	1.6	0.9	..	..	..	..	..	..	..
Secondary	..	..	..	..	..	..	..	..	..	..	..	..	..	..

Table 1 (continued)

	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
Latin America (millions of United States dollars)														
Argentina														
Primary	..	..	..	..	..	..	..	..	1.8	..	..	..	5.43	..
Secondary (metals)	..	..	..	..	..	..	..	..	..	..	..	..	2.59	..
Secondary (non-metallic)	..	..	..	..	..	..	..	..	..	..	..	..	9.19	..
Bolivia														
Primary	..	..	..	..	..	..	..	..	2.15	1.93	..	..	24.95	19.9
Secondary (metals)	..	..	..	..	..	..	..	..	..	..	..	..	1.27	..
Secondary (non-metallic)	..	..	..	..	..	..	..	..	..	..	..	..	..	2.07
Colombia														
Primary	..	..	..	..	..	..	..	..	440.29	371.98	324.87	2.09	100.99	48.3
[illegible]	..	..	..	..	..	..	..	..	6.67	(4.04)	1.03	0.34	5.26	(-0.63)
Secondary (non-metallic)	..	..	..	..	..	..	..	..	5.37	6.36	3.69	2.32	6.44	(-0.98)
Ecuador														
Primary	..	..	..	..	..	..	..	..	0.4	3.6	6.8	2.4	1.5	1.3
Secondary (metals)	..	..	..	..	..	..	..	..	2.0	0.1	0.9	1.4	3.6	0.9
Secondary (non-metallic)	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Peru														
Primary	..	..	..	..	..	..	..	..	4.28	3.09	0.18	2.32	3.57	0.37
Secondary (metals)	..	..	..	..	..	..	..	..	0.79	0.49	0.43	0.26	..	..
Secondary (non-metallic)	..	..	..	..	..	..	..	..	0.38	0.29	0.02	0.9	0.58	0.65

Source: United Nations, Department of Economic and Social Development, based on data collected by the Transnational Corporations and Management Division.

II. INVESTMENT TRENDS IN THE MINERAL SECTOR

14. Although there was a rapid increase in FDI flows in aggregate in the 1980s, it was accompanied by a transformation in the sectoral composition of both the flows and stocks of this investment. There was less concentration in raw materials, other primary products and resource-based manufacturing.

15. In the mineral sector, changes in the policies of many developing countries in the 1970s regarding the ownership of their natural resources was a factor in the decline of FDI in the sector. Moreover the depressed long-term price outlook since the 1980s resulted in relatively few mining projects being developed. Many mining companies were either reluctant or unable to undertake significant new equity investments in developing countries. As a result of rapidly rising investment costs, accompanied by declining rates of global demand for most basic mineral products, world market prices for many minerals hit their historically lowest levels in real terms.

16. The dominance of transnational mining companies in mineral activities in developing countries through traditional FDI has been declining since the 1960s. Several factors contributed to the decline: sharp increases during the 1960s in the host country taxation of foreign-owned mining operations; the partial or complete nationalization of these activities through the mid-1970s; the widespread growth of State mining enterprises since the early to mid-1970s; and most important, the change which occurred in the principal mode of financing mineral sector investments, loan financing practically superseding foreign equity financing.

17. Nevertheless, despite the above-mentioned transition, there has been a marked increase in new forms of international financial flows in mining and mineral processing industries of developing countries, with international loan finance linked to the purchase of mineral products; the supply of equipment; the provision of management and technical services by foreign companies; and the supply of technology through turnkey contracts, licensing and other contractual forms. In addition, lenders required that project development and initial operations be carried out by experienced foreign mining companies, thus retaining their influence.

18. It should be noted that the State mining companies of such countries as Brazil, Chile, China, Mexico, Morocco and India had developed their managerial and technical expertise to the point that foreign companies' involvement through loan financing in these countries was until recently largely to facilitate access to international export markets and/or to international financial markets. However, most of these countries have since opened their mineral sectors to foreign investment.

19. The principal forms of foreign investment in the mining and mineral processing industries in developing countries are: wholly or majority owned subsidiaries, joint ventures, licensing arrangements, management contracts and international subcontracting. Recently, most of the larger mining and mineral processing development projects have been operated under the international subcontracting system, in which the mining project (nominally under the control of a State mining concern) supplies the required funds and hires a contractor for specific tasks. The required funds are obtained through foreign credit

institutions, the World Bank (primarily through its affiliate, the International Finance Corporation), regional development banks and export-credit agencies. These financial institutions usually assert considerable control over operations, including choice of contractors. 3/

20. The major factors that led to the changing balance between the various forms of foreign investment in mining and mineral processing industries in developing countries were the global demand trend for mineral products, mineral prices, the financial situation of major mining companies and host government regulations.

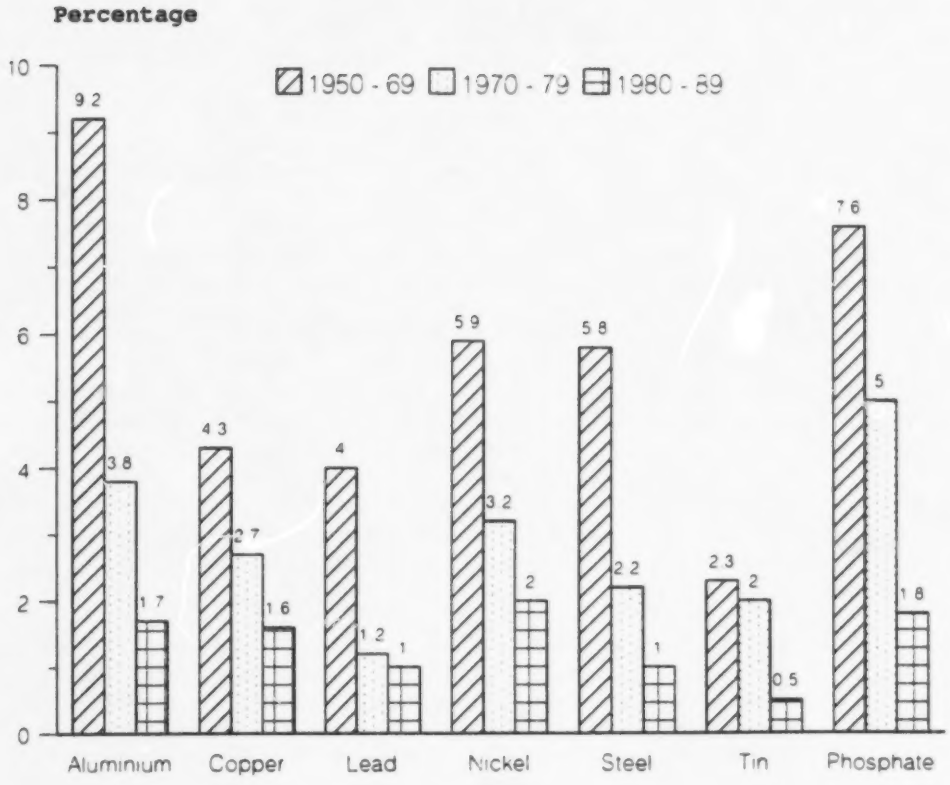
21. During the 1970s the rate of growth of global demand for most basic mineral products declined and in the early part of the 1980s demand stagnated or even turned negative. Figure 2 shows the average rates of growth of global demand for some of the key basic mineral products. Demand for most of these mineral products continues to be adversely affected by technological developments and by substitution with new materials. The changes in demand conditions are apparently not just the result of downturns in the business cycle but of more fundamental changes in long-term demand conditions.

22. The sharp rise in metal prices in 1988, following severe declines from 1980 through 1986, is a reflection more of volatility than of renewed stability of prices in the future (see figure 3). Depressed long-term market conditions and volatility in prices are the major causes of the marked deterioration in the financial position of the major mining companies, which has been exacerbated by the rising taxation of foreign-owned mining operations as the Governments of developing countries sought to increase their share of mining rents, especially during the 1970s.

23. With the adverse changes made by developing countries in the regulations for foreign investments in the mining sector it became progressively harder in the early to mid-1970s for transnational mining companies to obtain the favourable conditions for direct investments which had formerly prevailed, all the more so as countries became more aware of the terms and conditions negotiated by other countries. Meanwhile, due to the exposure of many developing countries to a high level of debt-related financial risk, and in some cases a high level of political risk as well, new investment tended to shift away from those countries. During that period only a few countries, such as Brazil and Papua New Guinea, continued to attract foreign equity capital.

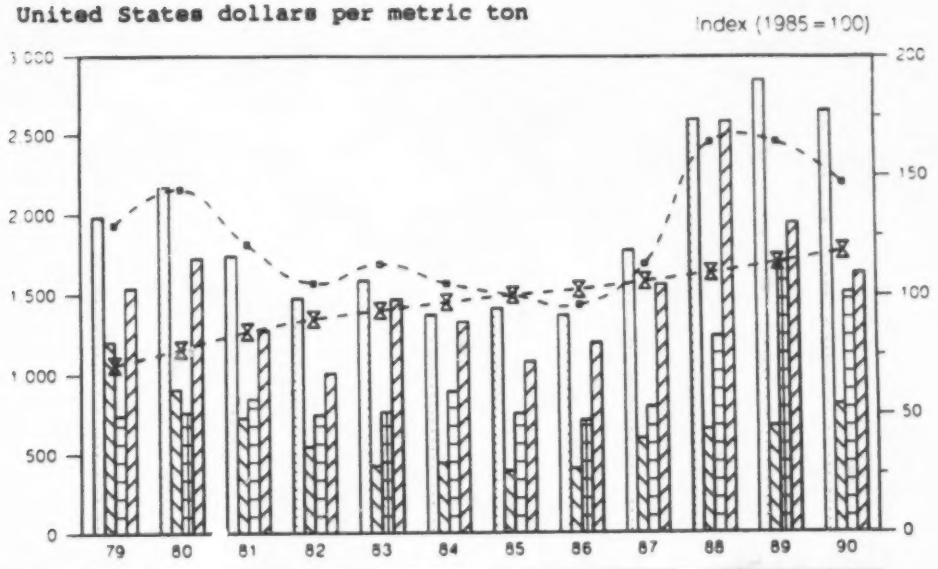
24. However, with loan financing (a combination of loans at concessionaire and commercial rates) superseding foreign equity financing as the principal mode of financing mineral sector investments, many developing countries became saddled with huge debt burdens as they had to assume major risks and costs, particularly countries with limited mining experience and those that depended heavily on the mineral sector for a large part of their foreign and local fiscal revenues. As a result, and especially after the 1982 debt crisis and the growing scarcity of loans even under project financing arrangements, several mineral producing developing countries began to actively promote FDI in the development of their mineral resources.

Figure 2. Average annual growth rate of world consumption of primary major metals and minerals



Source: United Nations, Department of Economic and Social Development, based on UNCTAD Commodity Yearbook, various issues.

Figure 3. Metal prices (London Metal Exchange cash settlement)



	79	80	81	82	83	84	85	86	87	88	89	90
Copper	1 984 4	2 173 4	1 742 1	1 480 3	1 592 1	1 377 9	1 417 5	1 373 8	1 781 4	2 600	2 846 7	2 660 8
Lead	1 203 4	906 8	727 1	545 8	425 6	443	391 1	406 2	596 9	653 3	673 4	810 6
Zinc	741 4	761 6	846 5	744 7	764 7	895 7	755 6	712 2	798 9	1 241 5	1 713 5	1 518 9
Aluminium	1 541 1	1 728 3	1 277 6	1 006 9	1 473 9	1 332 7	1 081	1 198	1 565 6	2 586 8	1 951 3	1 639 4
Metal prices index	129	144	121	105	113	105	100	96	113	164	164	147
US GNP deflator	70 8	77 3	84 7	90 1	93 6	97 2	100	102 5	105 8	109 4	113 8	118 5

Copper Lead Zinc Aluminium Metal prices index a/ US GNP deflator

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Source: United Nations, Department of Economic and Social Development, based on UNCTAD Commodity Yearbook, 1991; International Monetary Fund, Primary Commodities, July 1990; and International Monetary Fund, International Financial Statistics Yearbook, July 1992.

a/ The weights in metal prices are: Cu 26%; Al 20%; Fe ore 19%; Sn 10%; Ni 8%; Zn 6%; Pb 5%; PO_3 rock 6%.

III. PROPOSED MONITORING SYSTEM

25. It is proposed that a monitoring system for FDI in the mineral sector in the developing countries be established. This system would essentially consist of a statistical overview with as much detail and standardization as possible of the financial inflows in their various forms, including traditional foreign investment (whole or majority foreign ownership); international subcontracting, such as management and/or technology contracts; joint ventures; and production sharing and risk-service contracts. The objective of this system would be to achieve an enhanced perspective of patterns of FDI in the mineral sector, leading to a better understanding of factors influencing foreign investors in making decisions on the location of their investments. An analysis of the various factors at play would assist in the formulation of the most suitable and efficient policies by host developing countries seeking to attract FDI in the development of their mineral resources.

26. The monitoring system could also include a review of mining investment potential, particularly that of developing countries with little or no reception of FDI in the mineral sector. The regulatory framework for FDI in the mineral sector should also be monitored, since the degree of openness to foreign investors varies considerably among developing countries. Many countries have amended their legislation and tax regimes in order to facilitate liberalization of FDI for the development of individual industries, transfer of technology and enhanced exports. Other factors of importance in attracting FDI are overall macroeconomic policies, the degree of infrastructure development and the political stability of the host country. Competitive strategies are continually evolving world wide, with shifts in the division of risks, responsibilities and rewards among foreign investors, Governments, international lending institutions, commercial banks and local investors. A periodic review of these developments would be most informative and useful, if not indispensable, for the majority of developing countries.

IV. CAPACITY-BUILDING IN INVESTMENT PROMOTION

27. It is essential that developing countries have the capability to evaluate and develop their mineral resources efficiently, and in their quest for FDI special attention should be given to the creation and maintenance of conditions conducive to productive foreign investments. Developing countries are increasingly required to focus on the regulation and promotion of mineral resources development, especially in view of the keen competition for financing mineral development projects, given the increasing number of countries offering interesting projects. Countries of the Commonwealth of Independent States, central and eastern Europe and many of the developing countries that were hitherto closed to foreign investments in mineral development projects, as well as countries which are already established mining locales, are all becoming more aggressive in seeking investment capital.

28. The strengthening of national capacities should embrace such elements as:

(a) National geodatabase: geological knowledge of the country and its mineral deposits is crucial. Improved geological knowledge reduces technical uncertainties and provides the parties with a better basis for negotiating a

fair and long-lasting agreement. It is the responsibility of the Government to supply basic geological data of quality (geological and structural mapping and grass-roots exploration), without which necessary detailed exploration surveys and further development activities will not be possible. It is this data which initially attract legitimate mining companies;

(b) Mining legislation and fiscal regime: a mining code should be established to provide a legal framework which defines the relations between the investor and the Government. It should cover the conditions for investment, land tenure, rights and obligations of the operator, as well as investment and tax provisions. Without a stable legal and fiscal regime, it is difficult for potential investors to know the long-term prospects for mining activities in the country. A mining code would also enable the country itself to ensure a legal regime which applies to all investors equally;

(c) Institutional strengthening: in order to properly implement and maintain the legal/fiscal regime and to ensure an efficient appraisal and monitoring process of the mining sector, an efficient administrative framework is required. Very often inefficient bureaucratic processes are an impediment to investment, since delays become costly to proposed projects. Thus, it is imperative that institutional matters be addressed along with legislative/fiscal innovations;

(d) Information flows: the availability of adequate information on basic geological data and legislative, economic and fiscal matters are prerequisites for sound planning and decision-making for mineral development, for both Governments and foreign investors;

(e) Training and employment and transfer of technology: mineral exploration and development must be accompanied by adequate provision both for the training and employment of nationals in all aspects of the programme and for the transfer of technology;

(f) Infrastructure policy: often the infrastructure available to support mineral development is poor. Severe capital constraints are the norm in most developing countries and thus mining companies often have to build their own infrastructure. Governments need to plan infrastructure requirements if they are to support mineral development.

29. Revenues from mineral production can contribute significantly towards economic and social development of developing countries, but in many cases knowledge of their mineral resources is often limited. Most developing countries, given their limited resources and the competing demands upon these resources, cannot afford to invest in the risky business of mineral exploration. There are significant exploration gaps in developing countries. Foreign mining companies are understandably reluctant to undertake any ventures without some indication of the existence of significant occurrences of minerals of special interest to them.

30. It is clear that a large majority of developing countries themselves are unable to take the necessary first steps in a mineral exploration programme. Substantial assistance from both bilateral and multilateral sources is necessary to enhance the efforts of those developing countries in the

development of their mineral resources. Multilateral programmes are perhaps better suited for large mineral exploration projects because of their professional and global nature, apart from the fact that foreign mining companies do not undertake them.

V. CONCLUSIONS

31. There is a critical need for more accurate FDI data and related information in the mineral sector, because there is a lack of comparability between countries. Comparability of information would be more effective for public sector decision makers in their deliberations on the most suitable and efficient policies developing host countries can adopt to attract FDI for the development of their mineral resources. To attract FDI requires the preparation of a mineral sector development strategy, the conscious determination of a host country to implement this strategy and good administration.

32. As developing countries are more actively seeking new inflows of FDI, and considering the above-mentioned need for credible FDI data, the Committee may wish to consider a mechanism to monitor and gather information on a regular basis on issues concerning the flow of investment in the mineral sector and capacity-building in investment promotion.

Notes

1/ World Investment Director 1992 (United Nations publication, Sales No. E.92.II.A.11), vol. 1, chap. II.

2/ International Direct Investment and the New Economic Environment (Paris, Organisation for Economic Cooperation and Development, 1989).

3/ New Forms of Investment in Developing Country Industries (Paris, Organisation for Economic Cooperation and Development, 1989), chap. 2.